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Attorney Docket No. 32251-70829
PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: David C. May Confirmation No. 9351
Serial No.: 09/166,625 Art Unit: 1771
Filed: October 5, 1998 Examiner: Cheryl Ann Juska
For: HIGHLY DRAPABLE PROTECTIVE COVER HAVING ULTRATHIN
NON-WOVEN ABSORBENT LAYER

SUBMISSION OF APPLICANT'S BRIEF
UNDER 37 C.F.R. 1.192

Honorable Assistant Commissioner
for Patents
Washington, D.C. 20231

Sir:

Enclosed is Applicants' Brief in triplicate with a check for the required fee of \$165.00.

It is respectfully requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and shortages in other fees, be charged, or any overpayment in fees be credited, to the Account of Barnes & Thornburg, Deposit Account No. 10-0435 (32251/70829).

Respectfully submitted,

BARNES & THORNBURG

Richard B. Lazarus

Richard B. Lazarus
Reg. No. 48,215
Tel. No. (202) 289-1313

Enclosure
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APPEAL BRIEF

Honorable Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

Below is an Appeal Brief in support of an appeal taken from the Final Rejection of Claims 1, 3-10 and 12-17 mailed November 4, 2003. A Notice of Appeal was filed February 3, 2004.

1. **Real party in interest.** All rights in this application have been assigned to D.C. May Corporation, a corporation whose address is 215 Morris Street, Durham, North Carolina 27702.
2. **Related appeals and interferences.** Appellant, undersigned counsel for appellant, and assignee know of no appeals or interferences related to the present application on appeal.
3. **Status of Claims.** The application contains Claims 1, 3-10 and 12-17. Claims 1, 3-10 and 12-17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Garland (U.S. Patent No. 5,266,390) taken alone or in view of Reaves (U.S. Patent No. 5,368,912).

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4. **Status of Amendments.** All amendments filed by appellant have been entered and considered by the examiner. On November 4, 2003, a final rejection of all pending claims was issued. Appellant has not filed an After Final Amendment. Appellant's Notice of Appeal was filed February 3, 2004.

5. **Summary of the Invention.** The invention is directed to a drop cloth for protecting an object, surface of the like. The drop cloth has first and second layers, is light-weight, resistant to tearing or puncturing and is highly drapable. As shown in FIGS. 2 and 3, the drop cloth 10 includes a layer 14, and a layer 16 joined to the layer 14. The layer 16 is formed from a non-woven material including natural or rayon fibers and is of a thickness in the range of 1-2 mils. The layer 14 is formed from a liquid impervious and/or solvent-resistant plastic material such as polyethylene. Alternatively, the layer 14 may be formed from any other liquid impervious plastic materials such as vinyl plastics or polypropylene.

FIG. 4 shows a drop cloth 20 which incorporates a second embodiment, in particular, drop cloth 20 includes a first layer 22, a second layer 24 joined to the first layer 22, and a third layer 26 attached to the first layer 22 such that first layer 22 is interposed between second layer 24 and third layer 26. One advantage of adding third layer 26 is that it imparts additional tear or puncture resistance to drop cloth 20.

The present invention provides a light-weight, absorbent, tear and puncture resistant, highly drapable protective cover. Relative to prior art drop cloths formed from sheets or films of materials, such as paper or plastic, the non-woven fabric material cover of the present invention has a large permeable surface area resulting from the large number of intertwined individual fibers used to form the non-woven layer. Spilled liquids are quickly absorbed and dispersed throughout the fiber matrix. Once absorbed, the liquids are retained in the non-woven layer where they quickly dry out, thereby minimizing any chance that they will be tracked to other surfaces. The fibers used to form the non-woven layer are light-weight, flexible, and capable of withstanding significant tensile forces.

6. **Issue on appeal.**

Whether Claims 1, 3-10 and 12-17 are unpatentable under 35 U.S.C. 103(a) over Garland (U.S. Patent No. 5,266,390) taken alone or in view of Reaves (U.S. Patent No. 5,368,912).

7. **Grouping of Claims.** Claims 1, 3-10 and 12-17 stand or fall separately.

8. **Copy of the Claims.** A copy of the Claims on appeal is attached to this Brief as Appendix A.

9. **Argument.**

The final office Action rejects independent claims 1, 3-10 and 12-17 over Garland (U.S. Patent No. 5,266,390) taken alone or in view of Reaves (U.S. Patent No. 5,368,912) under 35 U.S.C. 103(a).

The Prior Art

Garland discloses a three-layered drop cloth, each outer layer being of spun bonded polypropylene film intimately bonded, utilizing suitable bonding process such as point bonding, heat bonding technology or pattern spray adhesive laminating, to an intermediate or inner film selected from polyethylene or polypropylene. (See column 2, lines 3-8). At column 1, lines 13-30 Garland briefly discusses prior art canvas and cloth drop cloths and their disadvantages. This is not a teaching or suggestion of a 1-2 mil layer of non-woven fabric including natural fibers or rayon attached to a liquid impervious plastic layer.

Reaves discloses a protective cover

made from a variety of natural or synthetic materials, including a variety of woven fabrics such as cotton sheeting or a variety of plastic sheeting. However according to a preferred embodiment, the protective cover 10 of the invention is made from an air permeable, nonwoven polypropylene sheet weighing 1.50 ounces per square yard and manufactured by Kimberly-Clark Corp. which has the advantage of being lightweight, inexpensive and resistant to condensation. (Column 2, lines 56-65).

Reaves discloses woven natural fibers and nonwoven polypropylene and does not teach or suggest a 1-2 mil layer of non-woven fabric including natural fibers or rayon attached to a liquid impervious plastic layer.

Claims 1 and 10

The final office action at page 2, paragraph No. 3, states the rejection of Garland in view of Reaves is "as set forth in section 4 of the last Office Action." The immediately previous office action on the merits is the final action mailed October 22, 2002. Section 4 of the October 22, 2002 office action includes a general reliance on Reaves without any specific mention of the applicability of Reaves. The following arguments point to the deficiencies in Garland. Reaves does not make up for these deficiencies.

Paragraph 5 on pages 2 and 3 of the final office action of November 4, 2003 asserts that “nonwoven” as recited in the present claims does not require the use of natural fibers. Claim 1 (and dependent claims 3-9) state that the non-woven fabric includes natural fibers. Accordingly, natural fibers are included in claims 1 and 3-9, notwithstanding the definition of non-woven.

Paragraph 6 of the final office action states

[t]he examiner agrees that the primary reference of Garland fails to teach natural fibers. However, the rejection is not a 102 anticipation rejection, but rather a 103 obviousness rejection. As stated in prior office actions, it would have been obvious to substitute the polypropylene nonwoven fabric with an inherently absorbent fiber such as cotton or rayon.

The statement in the final office action that “it would have been obvious to substitute the polypropylene nonwoven fabric with an inherently absorbent fiber such as cotton or rayon” is the first of several obviousness conclusions without a basis in the prior art for such conclusion. The second conclusion is found at paragraph 7 which concludes that “the claimed thickness would have been obvious to one of ordinary skill in the art” but there is no reference to a teaching or suggestion in the prior art for the claimed range (i.e., 1 to 2 mils). Paragraph 8 recites the third such conclusion which acknowledges the argument that the prior art adheres layers of plastic whereas the present claims adheres a plastic film to natural fibers and states “[t]his argument is unpersuasive in that it is well known in the art to adhere or fuse thermoplastic films to a wide variety of substrates, including natural fibers.” Neither Garland or Reaves are relied on for a teaching or suggestion of this feature. Thus, the final office action finds three claimed limitations to be obvious notwithstanding that these limitations are not taught or suggested in Garland or Reaves or in the combination of Garland and Reaves. All three improper conclusions are combined in the rejection. It is submitted that these conclusions appear to result from improper hindsight knowledge of applicant’s disclosure rather than a proper obviousness conclusion based on information taught or suggested by the prior art.¹

A *prima facie* case of obviousness is established when the teachings of the prior art itself would appear to have suggested the claimed subject matter to one of ordinary skill in

¹ Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. See Para-Ordnance Mfg. v. SGS Importers Int’l, 73 F.3d 1085, 1087, 37 USPQ 2d 1237, 1239 (Fed. Cir. 1995) (citing W. L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)).

the art.² There is nothing in the relied on prior art that teaches or suggests a drop cloth of a non-woven 1-2 mil layer of fabric including natural fibers attached to a layer of liquid impervious plastic material (claims 1 and 3-9) or a drop cloth of a non-woven 1-2 mil layer of fabric including rayon fibers attached to a layer of liquid impervious plastic material (claims 10 and 12-17).

Garland's drop cloth "preferably is made with a total thickness substantially in the range of 0.0015 to 0.004 mils" (column 4, lines 4-7). This is not even close to the range in appellant's claims and, at least for this reason, it cannot teach or suggest the claimed range. The final office action argues that the 0.0015-0.004 mil range in Garland is in error even though Garland mentions these or similar dimensions repeatedly in columns 3, 4, 5 and 6. In view of the statement in the final office action that Garland's disclosure is not enabling on this point, then the rejection is not proper for the additional reason that Garland is not prior art.³

Garland bonds spun bonded polypropylene to a polypropylene or polyethylene film (column 2, lines 1-10). Such disclosure, even if the prior art teaches fusing thermoplastic films to natural fibers (and such is not conceded), does not teach or suggest that it would have been obvious to attach a non-woven 1-2 mil layer of fabric including natural (claims 1 and 3-9) or rayon (claims 10 and 12-17) fibers attached to a layer of liquid impervious plastic material. The claimed non-woven fabric is different from Garland's spun bonded polypropylene fabric. The claimed 1-2 mil layer is different from the thickness of the layers in Garland. The natural (claims 1 and 3-9) or rayon (claims 10 and 12-17) fibers are different from the spun polypropylene in Garland. All of these differences must be considered when determining whether and how to attach the layers. The argument that Garland teaches or suggests the claimed attachment even though Garland uses different material of different thickness and which is spun bonded rather than non-woven fabric is evidence that the obviousness conclusion is wrong. When all of these considerations are viewed together it is very apparent that the claimed invention as a whole is not taught or suggested by the prior art.

Garland's lack of a disclosure of non-woven fabric material including natural (or rayon) fibers as the first layer is not made up for by Reaves. Reaves, in describing a nonwoven polypropylene sheet, briefly mentions natural fibers including woven fabrics (column 2, lines 55-59), but this is not a teaching or suggestion of non-woven fabric material

² See In re Bell, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993).

³ Printed publication will not suffice as prior art if it was not enabling. See In re Donohue, 226 USPQ 619, 621 (Fed. Cir. 1985).

including natural (or rayon) fibers as recited in appellant's claims. Garland taken alone, or in combination with Reaves, does not teach or suggest non-woven fabric material including natural (or rayon) fibers.

Each of the above arguments provide grounds for reversal of the rejection. Moreover, the several separate obviousness conclusions in the final office action further demonstrate that at the time of the invention one of ordinary skill in the art aware of Garland would not have found all of these deficiencies to have been obvious. Garland's deficiencies are not made up for by Reaves and for all of these reasons the rejection is improper. Accordingly, reversal of the rejection is, respectfully, requested.

Claim 3

Claim 3 depends from claim 1 and further requires that the natural fibers include cotton fibers. The final office action appears to address the limitations of claim 3 at page 3, paragraph 6 which states that "[a]s stated in prior office actions, it would have been obvious to substitute the polypropylene nonwoven fabric with an inherently absorbent fiber such as cotton or rayon."

It is not evident that that it would have been obvious to one of ordinary skill in the art to replace Garland's spun bonded polypropylene with a 1-2 mil layer of nonwoven fabric including cotton. In Garland it is disclosed that the spun bonded outer layer(s) are intimately bonded by point bonding, heat bonding or pattern spray adhesive (column 2, lines 1-8). Appellant's disclosure repeatedly describes the importance of providing a drop cloth that is light-weight, resistant to tearing or puncturing is highly drapable and is absorbent. All of these features are important. Garland's spun bonded polypropylene may have some of these characteristics, but how would replacement with a 1-2 mil layer of nonwoven fabric including cotton affect drapability, or weight, or absorbency or tearing and puncture resistance? One of ordinary skill in the art would have had to consider all of these features, since simply making a more absorbent cloth is not the point. The point is making a drop cloth that has all of these important characteristics. Whereas improving one characteristic may be helpful, one of ordinary skill in the art must consider the effect of any change on the other important characteristics. The explanation in the final office action is not proper without evidence of the conclusions of one of ordinary skill in the art regarding the effect of the change on each of the important characteristics of the drop cloth.

Claim 4

Claim 4 depends from claim 1 and further requires that the non-woven fabric material has fibers which are oriented in a directional orientation. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. This further limitation, taken in combination with the features of claim 1, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 5

Claim 5 depends from claim 1 and further requires that the non-woven fabric material has fibers which are randomly oriented. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. This further limitation, taken in combination with the features of claim 1, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 6

Claim 6 depends from claim 1 and further requires that the 1-2 mil non-woven fabric material including natural fibers further includes synthetic fibers which are fused together. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. It is evident that a drop cloth having a non-woven fabric material including natural fibers and fused together synthetic fibers fused together is particularly advantageous and is not taught or suggested by the prior art. This further limitation, taken in combination with the features of claim 1, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 7

Claim 7 depends from claim 1 and further requires that the second layer is fused to the first layer. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. Fusing a 1-2 mil layer of non-woven fabric material including natural fibers to a liquid impervious plastic material second layer is not taught or suggested by Garland or Reaves. This further limitation, taken in combination with the features of claim 1, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 8

Claim 8 depends from claim 1 and further requires that the second layer comprises polyethylene. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. The combination of a 1-2 mil layer of non-woven fabric material including natural fibers and a liquid impervious polyethylene plastic material second layer is not taught or suggested by Garland or Reaves. This further limitation, taken in combination with the features of claim 1, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 9

Claim 9 depends from claim 1 and further requires that said second layer has an adhesive material disposed thereon that facilitates a temporary attachment of said second layer to said surface. The prior art (Garland and/or Reaves) fails to provide any teaching or suggestion of an adhesive material disposed as claimed in claim 9 on appeal. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. This further limitation, taken in combination with the features of claim 1, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 12

Claim 12 depends from claim 10 and further requires that the non-woven fabric material has fibers which are oriented in a directional orientation. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. This further limitation, taken in combination with the features of claim 10, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 13

Claim 13 depends from claim 10 and further requires that the non-woven fabric material has fibers which are randomly oriented. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. This further limitation, taken in combination with the features of claim 10, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 14

Claim 14 depends from claim 10 and further requires that the 1-2 mil layer of non-woven fabric material including rayon fibers further includes fibers which are fused together. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. A drop cloth having a non-woven fabric material including rayon fibers and wherein fibers are fused together is particularly advantageous and is not taught or suggested by the prior art. This further limitation, taken in combination with the features of claim 10, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 15

Claim 15 depends from claim 10 and further requires that the second layer is fused to the first layer. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. Fusing a 1-2 mil layer of non-woven fabric material including rayon fibers to a liquid impervious plastic material second layer is not taught or suggested by Garland or Reaves. This further limitation, taken in combination with the features of claim 10, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 16

Claim 16 depends from claim 10 and further requires that the second layer comprises polyethylene. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. The combination of a 1-2 mil layer of non-woven fabric material including rayon fibers and a liquid impervious polyethylene plastic material second layer is not taught or suggested by Garland or Reaves. This further limitation, taken in combination with the features of claim 10, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

Claim 17

Claim 17 depends from claim 10 and further requires that said second layer has an adhesive material disposed thereon that facilitates a temporary attachment of said second layer to said surface. The prior art (Garland and/or Reaves) fails to provide any teaching or suggestion of an adhesive material disposed as claimed in claim 17 on appeal. The final office action does not address this limitation and it is not addressed in the earlier final office action mailed October 22, 2002. This further limitation, taken in combination with the features of claim 10, provides a drop cloth not taught or suggested by Garland taken alone or in combination with Reaves.

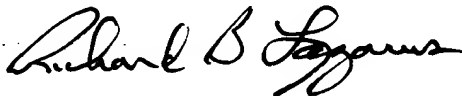
Conclusion of Argument

For the foregoing reasons, the appellant, respectfully, requests that the rejection of claims 1, 3-10 and 12-17 be reversed and the application be allowed.

It is respectfully requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and shortages in other fees, be charged, or any overpayment in fees be credited, to the Account of Barnes & Thornburg, Deposit Account No. 10-0435 (32251/70829).

Respectfully submitted,

BARNES & THORNBURG



Richard B. Lazarus

Reg. No. 48,215

Tel. No. (202) 289-1313

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Appendix A (Copy of Claims on Appeal)

1. A drop cloth for covering a surface, comprising:
 - a first layer having a non-woven fabric material, said non-woven fabric material including natural fibers; and
 - a second layer attached to said first layer, said second layer having a liquid impervious plastic material;wherein said first layer has a thickness;
wherein said thickness is in the range of 1 to 2 mils.
2. Canceled
3. The drop cloth of claim 1, wherein said natural fibers include cotton fibers.
4. The drop cloth of claim 1, wherein said non-woven fabric material has fibers which are oriented in a directional orientation.
5. The drop cloth of claim 1, wherein said non-woven fabric material has fibers which are randomly oriented.
6. The drop cloth of claim 1, wherein said non-woven fabric material further includes synthetic fibers which are fused together.
7. The drop cloth of claim 1, wherein said second layer is fused to said first layer.
8. The drop cloth of claim 1, wherein said second layer comprises polyethylene.
9. The drop cloth of claim 1, wherein said second layer has an adhesive material disposed thereon that facilitates a temporary attachment of said second layer to said surface.
10. A drop cloth for covering a surface, comprising:
 - a first layer having a non-woven fabric material, said non-woven fabric material including rayon fibers; and
 - a second layer attached to said first layer, said second layer having a liquid impervious plastic material;wherein said first layer has a thickness;
wherein said thickness is in the range of 1 to 2 mils.
11. Canceled

12. The drop cloth of claim 10, wherein said non-woven fabric material has fibers which are oriented in a directional orientation.

13. The drop cloth of claim 10, wherein said non-woven fabric material has fibers which are randomly oriented.

14. The drop cloth of claim 10, wherein said non-woven fabric material has fibers which are fused together.

15. The drop cloth of claim 10, wherein said second layer is fused to said first layer.

16. The drop cloth of claim 10, wherein said second layer comprises polyethylene.

17. The drop cloth of claim 10, wherein said second layer has an adhesive material disposed thereon that facilitates a temporary attachment of said second layer to said surface.